

# UNIVERSITY OF CALIFORNIA

## AGRICULTURAL EXPERIMENT STATION.

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### Shall California Make Sophisticated Wines?

The discussion concerning the definition of a pure wine, and of legislation relating thereto, appears to have reached a stage at which it is desirable to recall, to the minds of those concerned, the "bottom facts" of the case, which have been lost sight of in not a few of the arguments advanced in the premises. On the one hand, extreme purists have gone so far as to contend that even the blending of wines from different grapes constitutes a departure from strict rectitude; while on the other hand, we find gravely advanced, in public print as well as speech, and proposed to be enacted into a State law, a declaration that only poisons shall be excluded from the ingredients with which wines may be doctored for the public benefit. It has long puzzled philosophers and law-givers how a poison is to be defined. In the present case, the purest product possible contains as one of its essential ingredients a substance that is declared by a respectable portion of American opinion to be the very poison of poisons, which no one should touch, taste or handle. It is easy to foresee how adroit lawyers and easy-going "experts" would, under such a law, manipulate almost any but the most extreme cases, so as to produce a disagreement of juries.

It is a well-known characteristic of a primitive condition of human knowledge, that for any ill that befalls, a special medicine is sought. Among the greatest difficulties encountered by conscientious physicians is the persistent demand of patients for some tangible medicine, in cases when nothing but a change of hygienic conditions is needed, or can accomplish a cure. Similarly, in a primitive condition of the wine-making industry, the tendency is to rely on medicines to cure all faults found in the wine, instead of preventing the occurrence of such faults by the application of sound principles in its preparation.

California winemaking is just emerging from this primitive condition, in which wines were made from an indiscriminate mixture of Mission and other wine and table grapes, by the "go-as-you-please" process of fermentation, or by equally primitive methods derived from the producer's dim recollection of what he saw in Germany, France or Italy in his youthful days.

The wines thus produced were to a large extent so thoroughly faulty, that the dealers who bought them took great risks in their preservation and transformation into anything corresponding to a commercially recognized grade. The materials for making proper blends were not obtainable, and the temptation to produce by artificial additions at least the semblance of the right thing was great, even when the knowledge of suitable methods of after-treatment existed. This, however, was by no means generally the case; winemaking and dealing was undertaken like any other business venture, without any special knowledge of the subject, because it was expected to pay, and with the sole idea of producing, as cheaply as possible, something that would sell as wine. The injury done to the reputation of California wines during this primitive period still weighs down the prices and the estimation of our best products, which are mostly hid away under foreign labels; outside of the State, it is still a mooted question whether we can produce anything in the shape of wine that will remain sound for some years, and that will not show the earmarks of its origin in some objectionable form. Worse than this, however, there remain among us, as remnants of the olden time, many of the bad practices both of producers and dealers. Even in this year of grace, the dealer is abroad who tries to persuade the producer that "wine is wine," no matter whether Mission or Cabernet Sauvignon; that all this talk about distinctions of kinds and qualities is made by unpractical men who only make trouble for the trade, and that 15 cents per gallon all around is about the right gauge.

It is quite time that these remnants of the good old style should be definitively consigned to the rubbish pile. Producers are fast awakening to the conviction that a definite plan must be pursued in the planting of vineyards, in order that they may themselves be enabled to proportion properly the blends desired in the market. They are also learning that winemaking is not altogether the simple and easy thing it was supposed to be, but requires skill, judgment, and close attention to details which, only a few years ago, were scouted as being beneath the notice of "practical" men. A large proportion of the best Old World varieties of wine grapes has been imported, and their local adaptations are fast being recognized and systematically studied with a view to the production of definite qualities conforming to the commercial demand of the world, *by the blending of suitable varieties.*



A large number of producers who have created a direct market for their products, independently of wine-dealers, have successfully arranged their production so as to be independent of any medication whatsoever, and furnish wines conforming in every respect to the demands of legitimate commerce, as well as to the tastes of consumers. They furnish the living proof that "doctoring" is as unnecessary as it is objectionable from every point of view.

It is this most legitimate and desirable progress from crude mixing of miscellaneous ingredients into the semblance of wine, to the preparation and profitable marketing of an unimpeachable product, that is crossed and impeded by the manufacture of spurious wines and by the false pretense that the demands of the market require the sophistication of the product of the grape. If some wine-producers or dealers have failed to keep up with the progress of the times, and are thus not in a position to command the materials for proper blends from their ill-assorted vineyards, that is their misfortune or fault. It hardly justifies them in advocating the need and propriety of the use of cherry juice in making up deficiency of color; least of all does it justify their opposition to a legislative measure designed to enable the producers of pure wine (as defined in every dictionary and encyclopedia) to place a distinguishing mark upon the product of their skill or progressiveness.

Taking for granted that it is desirable to restrict as much as practicable the introduction into wines of any substance "not the product of the grape," a brief consideration of the ingredients of wine and must will show how far the need of any intervention of artificial additions can be maintained. If it can be shown that all desirable results can be compassed by the legitimate method of blending natural products, the wine-doctors' expedients should be repudiated as being needless as well as pernicious.

First, as to *water* (which after all is the most abundant ingredient of wine, since it constitutes from 81 to 92 per cent of dry wines), it must, of necessity, be used in the legitimate industry by which evaporated or "condensed" must is converted into wine by fermentation. Its use is also justifiable when by natural evaporation, in certain seasons, the grape juice contains too much sugar to allow of being fermented into dry wine, while light-bodied musts are not available for blending. The requirements of a sound fermentation limit its excessive use prior to that process; but the "stretching" of fermented wines, by its addition, is liable to gross abuse. When heavy red wines need dilution to conform to the requirements of the market, an abundance of light wines can be found for the purpose. Those of the Folle Blanche, Sultana, Burger and others are as neutral as could be desired, if suitable light red wines should not be available. There is no valid excuse for the use of water after fermentation.

*Sugar* is next in quantity to water. In the sunny climate of California, a serious deficiency of sugar is quite exceptional, provided the vineyard has been stocked with due regard to the local climate. A simple calculation shows that at the ruling prices and the average production of grapes per acre, the natural sugar of the grape is the cheapest available, since the best of commercial glucose introduces into the wine elements of instability, as well as other objectionable features impossible to overcome. Refined cane or beet sugar, when added to must prior to fermentation, is promptly converted into pure grape sugar and ferments out as such. Hence its use for the purpose of strengthening weak musts would seem to stand on the same basis as that of water for the opposite purpose; the sugar introduced becoming in every respect as identical with that of the grape, as the water. On the score of cost alone, however, it would in practice naturally be superseded by that of condensed must, so soon as this material shall be generally available.

As regards fortification with *alcohol* in the shape of "neutral spirit" instead of grape spirit, as advocated in the late district convention, it must be admitted that really "neutral" spirit would be objectionable mainly on grounds of true policy, in diminishing the market for our own brandy product. But most of the commercial article would infallibly make its presence felt in any delicate wine for years.

As regards *acid*, all "cream of tartar" is the product of the grape, and so is tartaric acid. There can be no intrinsic objection to the introduction of as much tartar as anybody may desire, into must or wine. Tartaric acid stands on a slightly different basis, as its presence, in place of its naturally occurring compound, renders the wine more liable to "turning" and other troubles. Those who attempt to use it on the large scale will also find that here, again, it is better to provide against any such expensive necessity by planting or purchasing a proper selection of acid grapes, by blending which with such troublesome varieties as Trousseau, Mission and others, a healthy fermentation can always be secured.

*Glycerine* and *carbonic gas* are natural products of wine fermentation. But no well-made wine requires the addition of glycerine, which serves mainly to hide avoidable faults. Carbonic gas is a legitimate ingredient of wine whenever wanted.

*Color* is probably the point which gives rise to more sophistication than any other; not only because the valley wines, which thus far have formed so large a proportion of the vintage, are generally deficient in color, but chiefly because in the "stretching" of wines, the color is that which suffers most obviously, and is most readily imitated by outside additions so as to satisfy the average consumer.

But since our vineyards have ascended from the valleys into the hill country, the supply of color proves to be as abundant in this State as



anywhere in the world. In fact, it would be difficult to find a heavier showing of color per acre than that of the *Gros Verdot* at Cupertino, which, with a tint about three times as deep as that of the average Zinfandel wine, yielded at the rate of about 25 tons of grapes, or say 3500 gallons of wine per acre, competing in cheapness with "cherry juice." The Grossblane, the Bouschets and others are similarly available for the more common wines, while for those of high degree we have the Cabernets, Beclan, Tannat, etc.

In regard to *tannin*, it was at one time thought that California wines were likely to be deficient, and this remains true of most of the valley wines; but the products of the hill vineyards leave little excuse for the use of tannin from outside sources. Both sides of the Santa Clara valley, as well as the hills of Napa and Sonoma, and even portions of the San Joaquin valley, have furnished wines of extraordinary tannin contents. There will be little difficulty in securing, hereafter, a sufficiency of blending wines for bringing clarets up to the Bordeaux standard in this respect.

Commercial (oak) tannin is not, chemically, or hygienically, the same as wine tannin; and its use should, as a rule, be restricted to the *fining* process. This process, as now largely practiced, is responsible for a great deal of the fault found elsewhere with California wines. Our winemakers have not mastered the fact that fining is the last process in the finishing of wine; that it is in every

instance an evil with respect to the delicacy and zest of the product, and should be practiced as sparingly as possible; and that a very large proportion of well-made, sound wines never need fining at all, if subjected to appropriate after-treatment, notably to frequent racking and aeration. It is here, especially, that hygienic treatment, instead of medication, needs to be generally adopted.

Finally, when wines are not entirely sound—and with the methods of fermentation now in vogue this is a very prevalent condition—the remedy to be applied should not lie in the use of antiseptics, sulphuring, salicylic or boracic acids and the like, but in the simple and rational heating process devised by Pasteur, and named for him. The "*Pasteurizer*" should be an indispensable appliance in every wine-house; and its use, if properly understood and practiced, will at once do away with nine-tenths of all doctoring for unsoundness. The universal adoption of this simple and inexpensive expedient will save all losses now sustained in the shipment of our young wines, and will soon do away with the reproach that "California wines will not keep."

If in the face of all these facts and legitimate substitutes for medication, there are those who desire to adhere to the old doctoring system, it is at least the right of those who do without them and furnish the consumers the pure product of the grape, to have a legalized mode of expressing the fact on the packages.

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